REMARKS

Status of the Claims and Amendment

Claims 34 and 35 have been amended. Claims 37 and 38 are canceled without prejudice. Claims 1-30 and 36 were previously canceled without prejudice. Claims 31-35 and 39-53 are all the claims pending in this application, and are rejected.

Claims 34 and 35 have been amended to delete subparts (ii) and (iii).

No new matter is added.

Withdrawn Rejections

Applicants thank the Examiner for withdrawing the rejection of claims 31-34 and 38 under 35 U.S.C. § 112, second paragraph, as being indefinite for "derived."

Applicants thank the Examiner for withdrawing the rejection of claims 34, 35, 37, and 38 under 35 U.S.C. § 112, second paragraph, as being indefinite for sequences.

Response To Rejections Under 35 U.S.C. § 112, first paragraph

1. Claims 34, 35, 37, and 38 remain rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking enablement for the scope of any/all fragments of the claimed heat shock protein providing pain relief, for the reasons of record.

2. Claims 31-35 and 37-53 remain rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking enablement for relieving pain by administering the claimed polynucleotides encoding a heat shock polypeptide, for the reasons of record.

The Office has not found Applicants' arguments that 1) the structural characteristic of the chaperonins 60 and 10 are well-established in the art, 2) *M. tuberculosis* is known to produce chaperonin 60.1, 60.2 and 10, and 3) chaperonin 60.2 exhibits 59.6% identity to cpn 60.1 protein, to be persuasive because the specification utilizes only whole cpn 60.1, cpn 60.2 or cpn 10 and

does not direct a person of skill in the art to any particular part (subsequence) which is the critical component to be retained in order to achieve the claimed results. Additionally, the Office Action asserts that Tormay *et al.*, presented by Applicants, is not directed to determining pain relief, but domains involved in intercellular signaling and activating.

In response, and as previously argued, because the structural characteristic of chaperonin 60 and chaperonin 10 are well-established in the art and the action of the proteins is often attributed to particular domains and the full-length protein is not generally required for activity, it would be a matter of routine experimentation to test the presently claimed nucleotides and presently claimed polypeptides for their pain relief characteristics. Further, one of ordinary skill in the art would be enabled to make the presently claimed polypeptide or nucleotide molecule encoding a heat shock polypeptide to provide pain relief treatment.

However, and solely to advance prosecution of the present application, claims 34 and 35 have been amended to delete subparts (ii) and (iii).

Accordingly, the rejections under 35 U.S.C. § 112, first paragraph, are rendered moot.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: November 11, 2009